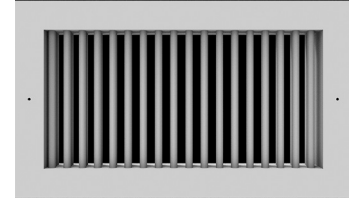


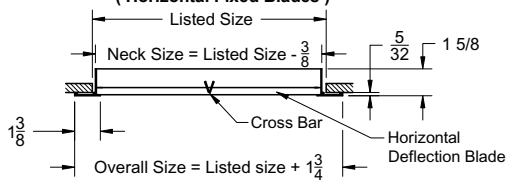
## MODEL 4002R

The 4000R series return grilles is designed to match the 4000 series supply grilles. They are available in aluminum (4002R) and steel (4002RS) construction.

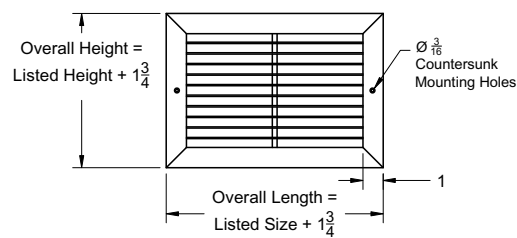
- Available in two frame styles (Surface Mount and Lay-in)
- Available with horizontal (H4002R/H4002RS) or vertical (V4002R/V4002RS) blades
- Standard 1 1/4" wide border with blades fixed on 2/3" centers
- Fixed 0° or 40° blade deflection
- Optional concealed mounting
- Optional stainless steel construction



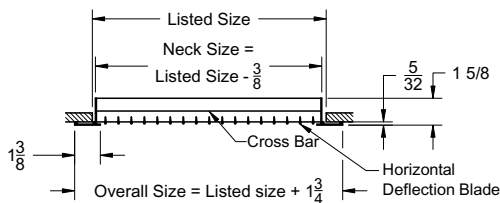
**Model: H4002R-1 ( Sidewall Return Grille - Surface Mount )  
( Horizontal Fixed Blades )**



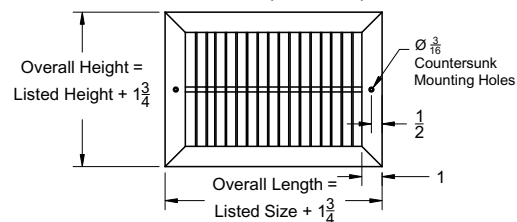
**Face View ( H4002R-1 )**



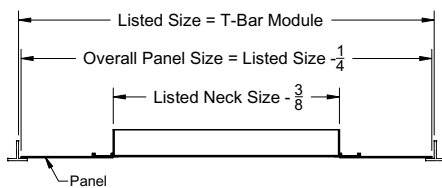
**Model: V4002R-1 ( Sidewall Return Grille - Surface Mount )  
( Vertical Fixed Blades )**



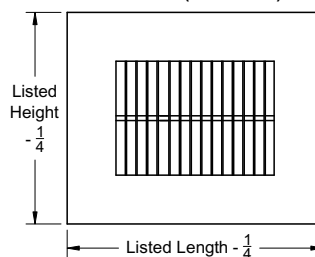
**Face View ( V4002R-1 )**



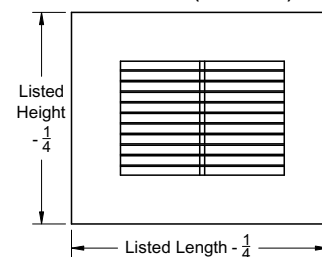
**Model: 4002R-6 ( Ceiling Return Grille - Lay In T-Bar )  
( V-Vertical Or H-Horizontal Fixed Blades )**



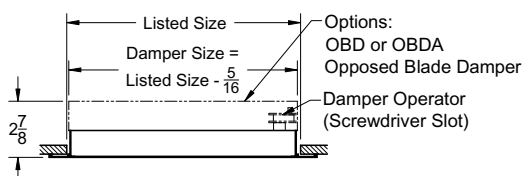
**Face View ( V4002R-6 )**



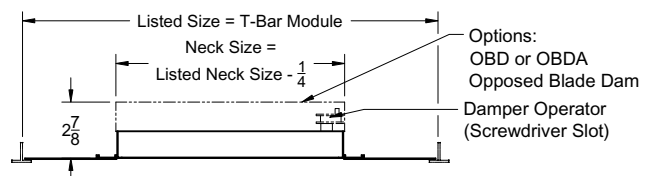
**Face View ( H4002R-6 )**



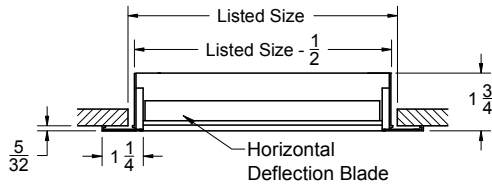
**Model: V4002R-1 Or H4002R-1 (Sidewall Return Register)  
(V-Vertical Or H-Horizontal Fixed Blades)  
( With Opposed Blade Damper )**



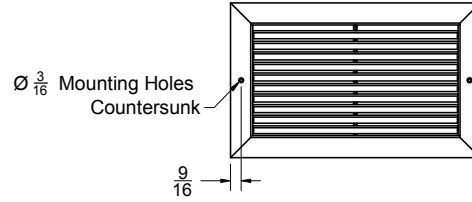
**Model: V4002R-6 Or H4002R-6 (Ceiling Return Register - Lay In T-Bar)  
(V-Vertical Or H-Horizontal Fixed Blades)  
( With Opposed Blade Damper )**



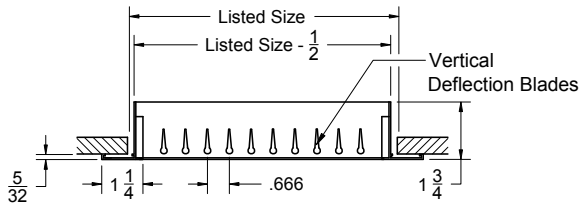
**Model: H4002RS-1 ( Sidewall Return Grille - Fixed Vertical Blades )**



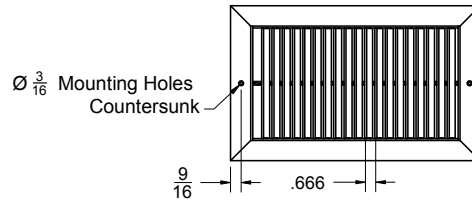
Face View (Horizontal Blades)



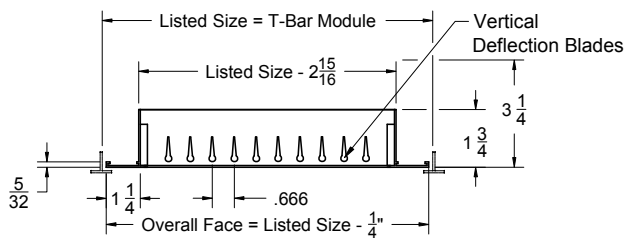
**Model: V4002RS-1 ( Sidewall Return Grille - Fixed Horizontal Blades )**



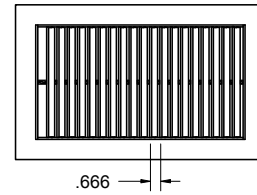
Face View (Vertical Blades)



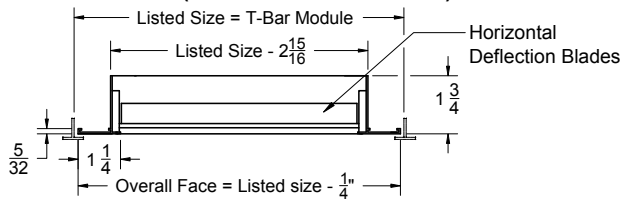
**Model: H4002RS-6 ( Ceiling Return Register - Lay In T-Bar )  
Fixed Vertical Blades**



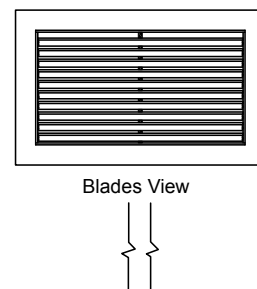
Face View (Vertical Blades)



**Model: V4002RS-6 ( Ceiling Return Grille - Lay In T-Bar )  
( Fixed Horizontal Blades )**



Face View (Horizontal Blades)



**SERIES 4002R SPECIFICATIONS****RETURN — FIXED BLADE — ALUMINUM/  
STEEL — MODELS 4002R/4002RS**

- Air inlets shall be model V4002R/V4002RS (vertical blades) or H4002R/H4002RS (horizontal blades) manufactured by METALAIRE. Units shall be return or exhaust grilles of aluminum (4002R) or steel (4002RS) construction and a single set of fixed deflection blades. The air inlets are to be specifically designed to match the appearance of the supply units, METALAIRE 4000 series. The units shall be the size and quantity as outlined in the plans and specifications. The border shall be 1 1/4" wide with aerodynamically shaped deflector blades on 2/3" center set at 0° or 40°. The deflector blades shall be fixed. Units shall be designed for surface mounting, with countersunk screw holes on the face of the device, or T-bar Lay-in applications.
- Optional opposed blade damper shall be constructed of steel (Model OBD) or aluminum (Model OBDA).
- Damper must be operable from the face of the register.

**Performance Specification**

The manufacturer shall provide published performance data. Data shall be tested in accordance to ANSI/ASHRAE Standard 70-2006.

**Paint Specification**

Process shall be anodic electro-deposition using an anodic acrylic paint. Units shall undergo pre-treatment including a pressurized spray stage using an alkaline cleaner and a de-ionized water rinse.

## 4000 MODEL NUMBER SPECIFICATION SIDEWALL RETURN GRILLE — SURFACE MOUNT

Model		Neck											
		6	8	10	12	14	16	18	20	22	24	26	
V4002R-1	Al. - Vertical Blade												
H4002R-1	Al. - Horizontal Blade	4	X	X	X	X	X	X	X	X	X	X	
V4002RS-1	Steel - Vertical Blade	5	X	X	X	X	X	X	X	X	X	X	
H4002RS-1	Steel - Horizontal Blade	6	X	X	X	X	X	X	X	X	X	X	
		8	X	X	X	X	X	X	X	X	X	X	
		10	X	X	X	X	X	X	X	X	X	X	
		12	X	X	X	X	X	X	X	X	X	X	
		14	X	X	X	X	X	X	X	X	X	X	
		16	X	X	X	X	X	X	X	X	X	X	
		18	X	X	X	X	X	X	X	X	X	X	
		20	X	X	X	X	X	X	X	X	X	X	
		22	X	X	X	X	X	X	X	X	X	X	
		24	X	X	X	X	X	X	X	X	X	X	
		26	X	X	X	X	X	X	X	X	X	X	
		28	X	X	X	X	X	X	X	X	X	X	
		30	X	X	X	X	X	X	X	X	X	X	
		32	X	X	X	X	X	X	X	X	X	X	
		34	X	X	X	X	X	X	X	X	X	X	
		36	X	X	X	X	X	X	X	X	X	X	
		38	X	X	X	X	X	X	X	X	X	X	
		40	X	X	X	X	X	X	X	X	X	X	
		42	X	X	X	X	X	X	X	X	X	X	
		44	X	X	X	X	X	X	X	X	X	X	
		46	X	X	X	X	X	X	X	X	X	X	
		48	X	X	X	X	X	X	X	X	X	X	

Available Finishes		Available Accessories	
<b>Standard</b>		OBD	Steel Opposed Blade Damper
01	White	OBDA	Aluminum Opposed Blade Damper
<b>Optional</b>		L9	Equalizing Grid
02	Satin Silver	PF	Plaster Frame
03	Black	LIPF	Lay-in Plaster Frame
04	Clear Anodize	IS	Insect Screen
24	Mill (Aluminum Construction Only)	TR	Square to Round Transition

Available Options	
NSH	No Screw Holes
CM	Concealed Mounting

## 4000 MODEL NUMBER SPECIFICATION

### SIDEWALL RETURN GRILLE — SURFACE MOUNT

Model		Neck											
V4002R-1	Al. - Vertical Blade		28	30	32	34	36	38	40	42	44	46	48
H4002R-1	Al. - Horizontal Blade	4	X	X	X	X	X	X	X	X	X	X	X
V4002RS-1	Steel - Vertical Blade	5	X	X	X	X	X	X	X	X	X	X	X
H4002RS-1	Steel - Horizontal Blade	6	X	X	X	X	X	X	X	X	X	X	X
		8	X	X	X	X	X	X	X	X	X	X	X
		10	X	X	X	X	X	X	X	X	X	X	X
		12	X	X	X	X	X	X	X	X	X	X	X
		14	X	X	X	X	X	X	X	X	X	X	X
		16	X	X	X	X	X	X	X	X	X	X	X
		18	X	X	X	X	X	X	X	X	X	X	X
		20	X	X	X	X	X	X	X	X	X	X	X
		22	X	X	X	X	X	X	X	X	X	X	X
		24	X	X	X	X	X	X	X	X	X	X	X
		26	X	X	X	X	X	X	X	X	X	X	X
		28	X	X	X	X	X	X	X	X	X	X	X
		30	X	X	X	X	X	X	X	X	X	X	X
		32	X	X	X	X	X	X	X	X	X	X	X
		34	X	X	X	X	X	X	X	X	X	X	X
		36	X	X	X	X	X	X	X	X	X	X	X
		38	X	X	X	X	X	X	X	X	X	X	X
		40	X	X	X	X	X	X	X	X	X	X	X
		42	X	X	X	X	X	X	X	X	X	X	X
		44	X	X	X	X	X	X	X	X	X	X	X
		46	X	X	X	X	X	X	X	X	X	X	X
		48	X	X	X	X	X	X	X	X	X	X	X

Available Finishes		Available Accessories	
<b>Standard</b>		OBD	Steel Opposed Blade Damper
01	White	OBDA	Aluminum Opposed Blade Damper
<b>Optional</b>		L9	Equalizing Grid
02	Satin Silver	PF	Plaster Frame
03	Black	LIPF	Lay-in Plaster Frame
04	Clear Anodized	IS	Insect Screen
24	Mill (Aluminum Construction Only)	TR	Square to Round Transition

Available Options	
NSH	No Screw Holes
CM	Concealed Mounting

## 4000 MODEL NUMBER SPECIFICATION SIDEWALL RETURN GRILLE — LAY-IN

Model		Neck											Module
		6	8	10	12	14	16	18	20	22	24		
V4002R-6	Al. - Vertical Blade												12 x 12
H4002R-6	Al. - Horizontal Blade - Single Def.	4	X	X									
V4002RS-6	Steel - Vertical Blade - Single Def.	6	X	X									
H4002RS-6	Steel - Horizontal Blade - Single Def.	8	X	X									
		10			X							24 x 12	
		4	X	X	X	X	X	X	X	X			
		6	X	X	X	X	X	X	X	X			
		8	X	X	X	X	X	X	X	X			
		10								X		24 x 24	
		4	X	X	X	X	X	X	X	X			
		6	X	X	X	X	X	X	X	X			
		8	X	X	X	X	X	X	X	X			
		10	X	X	X	X	X	X	X	X			
		12	X	X	X	X	X	X	X	X			
		14	X	X	X	X	X	X	X	X			
		16	X	X	X	X	X	X	X	X			
		18	X	X	X	X	X	X	X	X			
		20	X	X	X	X	X	X	X	X			
		22								X		48 x 24	
		4	X	X	X	X	X	X	X	X	X		
		6	X	X	X	X	X	X	X	X	X		
		8	X	X	X	X	X	X	X	X	X		
		10	X	X	X	X	X	X	X	X	X		
		12	X	X	X	X	X	X	X	X	X		
		14	X	X	X	X	X	X	X	X	X		
		16	X	X	X	X	X	X	X	X	X		
		18	X	X	X	X	X	X	X	X	X		
		20	X	X	X	X	X	X	X	X	X		

Available Finishes		Available Accessories	
<b>Standard</b>		OBD	Steel Opposed Blade Damper
01	White	OBDA	Aluminum Opposed Blade Damper
<b>Optional</b>		L9	Equalizing Grid
02	Satin Silver	TBPF	T-bar Plaster Frame
03	Black	IS	Insect Screen
24	Mill (Alum. Construction Only)	TR	Square to Round Transition
28	Custom Color	TR Deep	Deep Square to Round Transition

## 4000 MODEL NUMBER SPECIFICATION

## SIDEWALL RETURN GRILLE — LAY-IN

Model		Neck											Module
		6	8	10	12	14	16	18	20	22	24		
V4002R-6	Al. - Vertical Blade		X	X	X	X	X	X	X	X	X	X	48 x 48
H4002R-6	Al. - Horizontal Blade - Single Def.	4	X	X	X	X	X	X	X	X	X	X	
V4002RS-6	Steel - Vertical Blade - Single Def.	6	X	X	X	X	X	X	X	X	X	X	
H4002RS-6	Steel - Horizontal Blade - Single Def.	8	X	X	X	X	X	X	X	X	X	X	
		10	X	X	X	X	X	X	X	X	X	X	
		12	X	X	X	X	X	X	X	X	X	X	
		14	X	X	X	X	X	X	X	X	X	X	
		16	X	X	X	X	X	X	X	X	X	X	
		18	X	X	X	X	X	X	X	X	X	X	
		20	X	X	X	X	X	X	X	X	X	X	
		22	X	X	X	X	X	X	X	X	X	X	
		24	X	X	X	X	X	X	X	X	X	X	
		26	X	X	X	X	X	X	X	X	X	X	
		28	X	X	X	X	X	X	X	X	X	X	
		30	X	X	X	X	X	X	X	X	X	X	
		32	X	X	X	X	X	X	X	X	X	X	
		34	X	X	X	X	X	X	X	X	X	X	
		36	X	X	X	X	X	X	X	X	X	X	
		38	X	X	X	X	X	X	X	X	X	X	
		40	X	X	X	X	X	X	X	X	X	X	
		42	X	X	X	X	X	X	X	X	X	X	
		44	X	X	X	X	X	X	X	X	X	X	

Available Finishes		Available Accessories	
<b>Standard</b>		OBD	Steel Opposed Blade Damper
01	White	OBDA	Aluminum Opposed Blade Damper
<b>Optional</b>		L9	Equalizing Grid
02	Satin Silver	TBPF	T-bar Plaster Frame
03	Black	IS	Insect Screen
24	Mill (Alum. Construction Only)	TR	Square to Round Transition
28	Custom Color	TR Deep	Deep Square to Round Transition

## 4000 MODEL NUMBER SPECIFICATION SIDEWALL RETURN GRILLE — LAY-IN

Model		Neck												Module
		26	28	30	32	34	36	38	40	42	44	46		
V4002R-6	Al. - Vertical Blade													
H4002R-6	Al. - Horizontal Blade - Single Def.	4	X	X	X	X	X	X	X	X	X	X		
V4002RS-6	Steel - Vertical Blade - Single Def.	6	X	X	X	X	X	X	X	X	X	X		
H4002RS-6	Steel - Horizontal Blade - Single Def.	8	X	X	X	X	X	X	X	X	X	X		
		10	X	X	X	X	X	X	X	X	X	X		
		12	X	X	X	X	X	X	X	X	X	X		
		14	X	X	X	X	X	X	X	X	X	X		
		16	X	X	X	X	X	X	X	X	X	X		
		18	X	X	X	X	X	X	X	X	X	X		
		20	X	X	X	X	X	X	X	X	X	X		
		22											X	
		4	X	X	X	X	X	X	X	X	X	X		
		6	X	X	X	X	X	X	X	X	X	X		
		8	X	X	X	X	X	X	X	X	X	X		
		10	X	X	X	X	X	X	X	X	X	X		
		12	X	X	X	X	X	X	X	X	X	X		
		14	X	X	X	X	X	X	X	X	X	X		
		16	X	X	X	X	X	X	X	X	X	X		
		18	X	X	X	X	X	X	X	X	X	X		
		20	X	X	X	X	X	X	X	X	X	X		
		22	X	X	X	X	X	X	X	X	X	X		
		24	X	X	X	X	X	X	X	X	X	X		
		26	X	X	X	X	X	X	X	X	X	X		
		28	X	X	X	X	X	X	X	X	X	X		
		30	X	X	X	X	X	X	X	X	X	X		
		32	X	X	X	X	X	X	X	X	X	X		
		34	X	X	X	X	X	X	X	X	X	X		
		36	X	X	X	X	X	X	X	X	X	X		
		38	X	X	X	X	X	X	X	X	X	X		
		40	X	X	X	X	X	X	X	X	X	X		
		42	X	X	X	X	X	X	X	X	X	X		
		44	X	X	X	X	X	X	X	X	X	X		
		46											X	

Available Finishes		Available Accessories	
<b>Standard</b>		OBD	Steel Opposed Blade Damper
01	White	OBDA	Aluminum Opposed Blade Damper
<b>Optional</b>		L9	Equalizing Grid
02	Satin Silver	TBPF	T-bar Plaster Frame
03	Black	IS	Insect Screen
24	Mill (Alum. Construction Only)	TR	Square to Round Transition
28	Custom Color	TR Deep	Deep Square to Round Transition



**SERIES 4002R PERFORMANCE DATA**  
MODELS H4002R, V4002R, H4002S, V4002RS

Size	Duct Area ft <sup>2</sup>	Nk Vel	100	200	300	400	500	600	700	800	900
		Ps	-0.002	-0.009	-0.020	-0.035	-0.055	-0.080	-0.109	-0.142	-0.180
06x06	.25	CFM	19	38	57	77	96	115	134	153	172
		NC	-	-	-	14	20	25	29	32	35
08x06	.33	CFM	27	53	79	106	132	159	185	212	238
		NC	-	-	-	16	22	26	30	34	37
08x08	.44	CFM	37	73	110	146	183	219	256	292	329
		NC	-	-	-	17	23	28	32	35	38
12x06	.50	CFM	41	82	123	164	205	246	287	328	369
		NC	-	-	-	18	23	28	32	36	39
16x06 12x08	.67	CFM	56	111	167	222	278	334	389	445	501
		NC	-	-	12	19	25	29	33	37	40
12x10	.83	CFM	72	144	217	289	361	434	506	578	651
		NC	-	-	13	20	26	31	35	38	41
24x06 12x12	1.00	CFM	85	170	255	339	424	509	594	678	763
		NC	-	-	13	21	27	31	35	39	42
14x12	1.16	CFM	104	208	311	415	518	622	725	829	932
		NC	-	-	14	22	27	32	36	40	43
14x14	1.36	CFM	122	244	366	488	610	731	853	975	1097
		NC	-	-	15	22	28	33	37	40	43
24x12 18x16	2.00	CFM	182	364	545	727	909	1090	1273	1453	1635
		NC	-	-	17	24	30	35	39	42	45
18x18	2.25	CFM	206	413	620	826	1033	1240	1447	1653	1860
		NC	-	-	17	25	30	35	39	43	46
24x18	3.00	CFM	278	557	835	1114	1392	1671	1949	2228	2506
		NC	-	12	19	26	32	36	40	44	47
48x12 24x24	4.00	CFM	368	738	1107	1478	1846	2216	2585	2955	3324
		NC	-	12	20	27	33	38	42	45	48
30x20	4.17	CFM	390	781	1173	1564	1955	2346	2738	3129	3520
		NC	-	13	20	28	33	38	42	45	48
36x20 30x24	5.00	CFM	469	940	1412	1883	2355	2826	3297	3769	4240
		NC	-	14	21	28	34	39	43	46	49
36x22	5.50	CFM	520	1040	1560	2080	2600	3120	3640	4160	4680
		NC	-	14	21	29	34	39	43	47	50
48x18 36x24	6.00	CFM	566	1132	1698	2264	2831	3397	3963	4529	5095
		NC	-	14	22	29	35	40	44	47	50
48x24 36x32	8.00	CFM	760	1523	2287	3050	3813	4576	5340	6103	6866
		NC	-	15	23	30	36	41	45	48	51

CONTINUED

## SERIES 4002R PERFORMANCE DATA

MODELS H4002R, V4002R, H4002S, V4002RS

Size	Duct Area ft <sup>2</sup>	Nk Vel	100	200	300	400	500	600	700	800	900
		Ps	-0.002	-0.009	-0.020	-0.035	-0.055	-0.080	-0.109	-0.142	-0.180
48x30 42x34	10.00	CFM	960	1920	2880	3840	4800	5760	6720	7680	8640
		NC	-	15	24	31	37	42	46	49	52
48x36	12.00	CFM	1160	2316	3473	4629	5785	6941	8098	9254	10410
		NC	-	16	25	32	38	43	47	50	53
48x40	13.33	CFM	1290	2578	3865	5153	6440	7728	9015	10303	11590
		NC	-	16	25	33	38	43	47	51	54
48x48	16.00	CFM	1550	3100	4650	6200	7750	9300	10850	12400	13950
		NC	-	17	26	33	39	44	48	51	54

### PERFORMANCE NOTES FOR SERIES 4002R

All data is tested in accordance with ANSI/ASHRAE 70-2006.

#### DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

Ps Static pressure =  $P_t - P_v$  (inches of water column)

Nk Vel Neck velocity of air stream in Feet Per Minute

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) RE:  $10^{-12}$  watts minus a 10dB room attenuation in all octave bands.